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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,756	10/30/2003	Man-Pyo Hong	587-33	8762

7590 12/04/2006

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EXAMINER

GYORFI, THOMAS A

ART UNIT	PAPER NUMBER
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2135

DATE MAILED: 12/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/697,756

Applicant(s)

HONG ET AL.

Examiner

Tom Gyorf

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>10/30/03</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. Claims 1-3 are pending examination.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 10/30/03 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by "Intrusion Detection Using Static Analysis" (hereinafter, "Wagner").

Regarding claim 1:

Wagner discloses a method for detecting malicious scripts using a static analysis, comprising the step of: checking whether a series of methods constructing a malicious code pattern exist and whether parameters and return values associated between the methods match each other (page 158, 1st paragraph); wherein the checking step comprises the steps of: classifying, by modeling a malicious behavior in

such a manner that it includes a combination of unit behaviors each of which is composed of sub-unit behaviors or one or more method calls, each unit behavior and method call sentence into a matching rule for defining sentence types to be detected in script codes and a relation rule for defining a relation between patterns matched so that the malicious behavior can be searched by rule variables used in the sentences satisfying the matching rule (section 4.3, "The abstract stack model", and particularly pages 160-161, "The context-free model"); generating instances of the matching rule by searching for code patterns matched with the matching rule from a relevant script code to be detected, extracting parameters of functions used in the searched code patterns, and storing the extracted parameters in the rule variables [i.e., actually implementing the classification step above] (Ibid, and also page 164, "6. Evaluation", 1st paragraph); and generating instances of the relation rule by searching for instances satisfying the relation rule from a set of the generated instances of the matching rule (Ibid).

Regarding claim 2:

Wagner discloses all the limitations of claim 1 above. Wagner further discloses wherein the matching rule is composed of rule identifiers and sentence patterns constructing malicious behavior and having the same grammar as a language of the scripts to be detected (Figure 2), and wherein the relation rule comprises conditional expressions in which conditions satisfying the relevant rule are described, and action expressions in which contents to be executed are described when the conditions in the conditional expressions are satisfied (Figure 2).

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Regarding claim 3:

Wagner discloses all the limitations of claim 2 above. Wagner further discloses wherein the relation rule includes preconditions that should be satisfied prior to the conditions in the conditional expressions are described (page 162, "Principle 1" and subsequent paragraphs), and the action expressions describe contents that will be executed when both the conditional expressions and preconditions are satisfied (Fig. 2).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: U.S. Patents 7,093,239; 7,089,591; 7,069,589; 7,051,368; 7,013,483; 6,813,712; 5,983,348; 5,390,232; and U.S. Patent Application Publications 2004/0073811 and 2003/0233574.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Gyorfí whose telephone number is (571) 272-3849. The examiner can normally be reached on 8:30am - 5:00pm Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TAG
11/28/06



KIM VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100